

1970 INDEX OF ARTICLES PUBLISHED IN

MATERIALS ENGINEERING

INDEX OF FEATURE ARTICLES

ALUMINUM AND ITS ALLOYS

- New Aluminum Alloys Mean Stronger Castings--May, p 40
- New Wrought Aluminum Alloys Fight Corrosion--June, p 22
- Use Fracture Toughness to Avoid Catastrophic Failure--Sept, p 26

CASTINGS

- Die Cast Gears for Versatility and Low Cost--Mar, p 28
- New Aluminum Alloys Mean Stronger Castings--May, p 40

COATINGS, FINISHES

- Colorful Decals Identify, Inform, Instruct, Decorate--Apr, p 54
- Dry Film Lubricants Add Service Life, Cut Costs--Jan, p 47
- Engineers' Guide to Electrical Insulation--Sept, p 36
- Five Years of Progress in Aerospace--Aug, p 28
- Improved Galvanized Steel Gives Long-Term Protection at Low Cost--Nov, p 54
- Polyurethane Coatings, Where, Why and How to Use Them--Feb, p 47
- Radiation Cured Coatings Speed Product Finishing--Oct, p 56
- Sputtered Coatings Aim for New Uses--Aug, p 44
- Technique Opens New Uses for Aluminum Coatings--Mar, p 52
- Textured Metals Slash Maintenance Costs, Up Appearance--Sept, p 55
- Tough Marine Coatings Keep Ships Afloat Longer--June, p 60
- Versatile Ceramic Coatings Resist Tough New Service Environments--Dec, p 46

CERAMICS, GLASS

- Engineers' Guide to Electrical Insulation--Sept, p 36
- Engineers' Guide to Structural Ceramics--Nov, p 38

COMPOSITES (EXCEPT REINFORCED PLASTICS)

- Engineers' Guide to Electrical Insulation--Sept, p 36
- Five Years of Progress in Aerospace--Aug, p 28

COPPER AND ITS ALLOYS

- Three New Copper Alloys with Cost Advantages--Dec, p 15

ELECTRICAL AND ELECTRONIC PROPERTIES & MATERIALS

Engineers' Guide to Electrical Insulation Materials--Sept, p 36
Five Years of Progress in Aerospace--Aug, p 28
Mini Guide to Encapsulation, Potting and Embedding Materials--Aug, p 20

FORMING

Consider Electroforming for Intricate Precision Parts--Textured or Mirror Finishes--
Engineers' Guide to Structural Ceramics--Nov, p 43 Oct, p 38
Formable Cold Rolled Steel from Continuously Cast Slabs--July, p 22

GENERAL

Five Years of Progress in Aerospace Materials--Aug, p 28

HIGH TEMPERATURE PROPERTIES AND MATERIALS

Cast Ferrous Metals Properties and Characteristics--Jan, p 32
Engineers' Guide to Thermal Insulation--May, p 26
Five Years of Progress in Aerospace Materials--Aug, p 28

JOINING & FASTENING

Five Years of Progress in Aerospace Materials--Aug, p 28
41 New Adhesives for Bonding Parts Quickly, Strongly--July, p 34
Four Processes Bolster Fusion Welding--Apr, p 40
How to Apply Adhesives--July, p 38

MACHINING, METAL REMOVAL

How to Process for Shear Spinning--Feb, p 26
Photoetching Makes Precision Metal Parts--Nov, p 28

MAGNESIUM AND ITS ALLOYS

Die Cast Gears for Versatility and Low Cost--Mar, p 28

MATERIALS AGE

Overcoming Barriers in R&D Coupling--Jan, p 18

NONMETALLIC MATERIALS (NOT ELSEWHERE)

Engineers' Guide to Thermal Insulation--May, p 26
Mini Guide to Optical Crystals--Oct, p 24

PLASTICS, GENERAL

Engineers' Guide to Acetal Plastics--Mar, p 36
Guide to Polycarbonate Plastics--Dec, p 26
Plastic Impregnation + Irradiation Makes Wood Stronger, Harder--Oct, p 28

PLASTICS, REINFORCED

Engineers' Guide to Electrical Insulation--Sept, p 36
Engineers' Guide to Glass Reinforced Plastics--Feb, p 34
Self-lubricated Reinforced Plastic Gears and Bearings Cut Friction, Wear--Aug, p 24

RUBBER

An Engineers' Guide to Natural Rubber--Apr, p 22
Engineers' Guide to Electrical Insulation--Sept, p 36
Mini Guide to Elastomers--June, p 38
The Rubber Jungle and How to Find Your Way Out--Jan, p 24

STEELS

Cast Ferrous Metals, Properties and Characteristics--Jan, p 32
Improved Galvanized Steel Gives Long-term Protection at Low Cost--Nov, p 54
New Alloys and Applications Boost Prospects for Maraging Steel--Feb, p 22
Use Fracture Toughness to Avoid Catastrophic Failure--Sept, p 26
Weldable C-Mn-B Steels Upgrade Earthmoving Equipment at Low Cost--June, p 26

TESTING & INSPECTION

ASTM Gears for the 70's to Speed Test Standards--Oct, p 66
Guide to Environmental Tests--June, p 46
Guide to Mechanical Tests for Brittle Material--Mar, p 60
Holographic NDT Helps Keep Materials Defect-free--Aug, p 50
New Electrochemical Tests Spot Stress Corrosion Quickly--Sept, p 62
Neutron Radiography Takes a Deeper Look at Materials--Nov, p 62
Science of Color Selection Help for the Imperfect Eye--Jan, p 54
Use Value Engineering to Cut Material Costs--Apr, p 62
What's New in Destructive Testing--Dec, p 33

WOOD

Plastic Impregnation + Irradiation Makes Wood Stronger, Harder--Oct, p 28

ZINC AND ITS ALLOYS

Die Cast Gears for Versatility and Low Cost--Mar, p 28
Improved Galvanized Steel Gives Long Term Protection at Low Cost--Nov, p 54

TITANIUM AND ITS ALLOYS

Use Fracture Toughness to Avoid Catastrophic Failure--Sept, p 26

INDEX OF AUTHORS

- Epstein, Dr. B.N., Engineers' Guide to Acetal Plastics--Mar, p 36
- Everhart, J.L., Cast Ferrous Metals, Properties and Characteristics--Jan, p 32
- Ezra, A.A., Overcoming Barriers in R & D Coupling--Jan, p 18
- Fabian, R.J., An Engineers' Guide to Natural Rubber--Apr, p 22
Engineers' Guide to Electrical Insulation--Sept, p 36
Engineers' Guide to Glass Reinforced Plastics--Feb, p 34
Engineers' Guide to Structural Ceramics--Nov, p 38
Engineers' Guide to Thermal Insulation--May, p 26
41 New Adhesives for Bonding Parts Quickly, Strongly--July, p 34
Mini Guide to Encapsulation, Potting and Embedding Materials--Aug, p 20
Mini Guide to Optical Crystals--Oct, p 24
Plastic Impregnation + Irradiation Makes Wood Stronger, Harder--Oct, p 28
- Flanders, S., Mini Guide to Elastomers--June, p 38
- France, Jr., W.D. and Mazzatenta, E.D., New Electrochemical Tests Spot Corrosion Quicker--Sept, p 62
- Kalin, S.H., Alworth, H.M. and Hollmann, H.R., Formable Cold Rolled Steel from Continuously Cast Slabs--July, p 22
- Lange, E.A., Use Fracture Toughness to Avoid Catastrophic Failure--Sept, p 26
- Martin, R.A., How to Apply Adhesives--July, p 38
- Mock, J.A., ASTM Gears for the '70's to Speed Test Standards--Oct, p 66
Colorful Decals Identify, Inform, Instruct, Decorate--Apr, p 54
Dry Film Lubricants Add Service Life, Cut Costs--Jan, p 47
Guide to Environmental Tests--June, p 46
Guide to Mechanical Tests for Brittle Materials--March, p 60
Holographic NDT Helps Keep Materials Defect-Free--Aug, p 50
Improved Galvanized Steel Gives Long-Term Protection at Low Cost--Nov, p 54
Metallized Metals Master Heat, Wear, Oxidation--May, p 54
Neutron Radiography Takes a Deeper Look at Materials--Nov, p 62
Polyurethane Coatings, Where, Why and How to Use Them--Feb, p 47
Radiation Cured Coatings Speed Product Finishing--Oct, p 56
Science of Color Selection: Help for the Imperfect Eye--Jan, p 54
Sputtered Coatings Aim for New Uses--Aug, p 44
Technique Opens New Uses for Aluminum Coatings--March, p 52
Textured Metals Slash Maintenance Costs, Up Appearance--Sept, p 55
Tough Marine Coatings Keep Ships Afloat Longer--June, p 60
Use Value Engineering to Cut Materials Costs--April, p 62
Versatile Ceramic Coatings Resist Tough New Service Environments--Dec, p 46
What's New in Destructive Testing--Dec, p 33

INDEX OF AUTHORS

- Oberle, T.L., Weldable C-Mn-B Steels Upgrade Earthmoving Equipment at Low Cost--June, p 26
- Sparboe, D.I., Engineers' Guide to Polycarbonate Plastics--Dec, p 26
- Stewart, J.D., How to Process for Shear Spinning--Feb, p 26
- Stoeck, P.F., The Rubber Jungle--and How to Find Your Way Out--Jan, p 24
- Sunday, R.E., Die Cast Gears for Versatility and Low Cost--Mar, p 28
- Theberge, J., Self-lubricated Reinforced Plastic Gears and Bearings Cut Friction,
Wear--Aug, p 24
- Vaccari, J.A., Consider Electroforming for Intricate Precision Parts--Textured
or Mirror Finishes--Oct, p 28
- Five Years Progress in Aerospace Materials--Aug, p 28
- Four Processes Bolster Fusion Welding--April, p 40
- New Alloys and Applications Boost Prospects for Maraging Steel--Feb, p 22
- New Aluminum Alloys Mean Stronger Castings--May, p 40
- New Wrought Aluminum Alloys Fight Corrosion--June, p 22
- Photo-etching Makes Precision Metal Parts--Nov, p 28
- Three New Copper Alloys with Cost Advantages--Dec, p 15